

Monique L. Smith, Ph.D.

Departments of Neurobiology and Neurosciences
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APPOINTMENTS

11/2022- Assistant Professor, Department of Biological Sciences, Neurobiology Section, and Department of Neurosciences, University of California, San Diego

07/2021- Assistant Professor of Neuroscience, Department of Psychological Sciences, University of San Diego
11/2022

09/2016- Postdoctoral Researcher, PI: Robert Malenka, Stanford University
08/2021 Anterior cingulate mechanisms of mouse models of empathy

09/2011- Graduate Student, PIs: Andrey Ryabinin and Mary Heinricher, Oregon Health & Science University
07/2016 Thesis title: Social transfer of pain in the mouse

EDUCATION

2011-2016 Ph.D., Department of Behavioral Neuroscience, Oregon Health & Science University, Portland, OR
2007-2010 M.A., Department of Psychology, California State University San Marcos, San Marcos, CA
2002-2007 B.A., Department of Psychology, California State University San Marcos, San Marcos, CA

HONORS & AWARDS

2022 **Travel Fellowship**, Winter Conference on Brain Research (WCBR)

2022 **Early Career Researcher Award**, Society for Social Neuroscience (S4SN)

2021 **Top 10 (#3) Pain Research Forum News stories of 2021**, Smith. et. al. Science, 2021

2020 **Leading Edge Fellow**, Howard Hughes Medical Institute (HHMI), Janelia

2020 **Travel Award**, Carl Storm for Underrepresented Minorities, Gordon Research Conference

2019 **Attendee**, Neuroscience School of Advanced Studies: Neuroscience of Social Cognition

2018 **Deans Fellowship**, Stanford University School of Medicine

2017 **T32 Training Grant**, National Institutes of Mental Health, Stanford University

2017 **Certificate of Honor**, for March for Science Planning, San Francisco Board of Supervisors

2017 **Best Graduate Student Paper**, Behavioral Neuroscience Department, OHSU

2016 **Student Merit Travel Award**, Research Society on Alcoholism (RSoA)

2016 **Travel Award**, Volterra Alcohol Conference, NIAAA

2015 **Attendee**, Cellular Biology of Addiction Course, Cold Spring Harbor

2015 **Stipend Award**, NIH-sponsored, Cellular Biology of Addiction Course, Cold Spring Harbor

2015 **Student Merit Travel Award**, Research Society on Alcoholism (RSoA)

2015 **Ashworth Training Award**, Behavioral Neuroscience Department, OHSU

2014 **F31 Predoctoral National Research Service Award**, National Institute on Alcohol and Alcoholism

2014 **Excellence in Neuroscience Outreach Award**, Portland Alcohol Research Center, OHSU

2014 **Excellence in Pain Research Award**, Oregon Pain Awareness Investigation Network

2014 **Travel Award**, International Association on the Study of Pain, World Congress on Pain

2014 **Student Merit Travel Award**, Research Society on Alcoholism (RSoA)

2014 **Travel Award**, OHSU Graduate Student Organization

2013 **Neurobiology of Disease Fellowship**, OHSU Brain Institute

2013 **Second Place Presentation**, Graduate Division, OHSU Annual Research Week

2012 **T32 Training Grant Trainee**, National Institutes of Alcohol Abuse and Alcoholism

2011 **Best Poster**, Annual International Headache Congress, Berlin, Germany

2010 **Master the Doctorate Scholar**, National Science Foundation (NSF) Summer Programs for Undergraduate and Graduate Research for Minority Students, UCLA

2008 **Travel Award**, Research Dissemination Fund, California State University San Marcos

2008 **Second Place Presentation**, Graduate Division CSU State Research Competition

2008 **Research Competition Finalist**, Graduate Division, CSU San Marcos

2007 **First Place Research Presentation**, Graduate Division, CSU State Research Competition

2007 **Research Competition Finalist**, Graduate Division, CSU San Marcos

MENTORING

Postdoctoral Fellows

July 2021- Dr. Ben Rein, Stanford University

Graduate rotation students

Forthcoming

2022 Jie Zhang, PhD student in Biological Sciences, UCSD

Undergraduate students

2022 Julia Johnson and Cali Boustani, Summer Undergraduate Research Experience funded, USD

2021-2023 Undergraduate Research Assistants: Erin Jones, Cassidy Bates, Nicole Dorn, Andre Battikha, Julia Johson, Cali Boustani, Elysee Velma, Isabella Lekander, Mychaela Thomas, Samara Ayoob-Ahmad, Mariya Kamilla Iskakova, University of San Diego

2021-2023 Sabrena Tuy, Post Baccalaureate Research Assistant

2019 Max Lenail, Brown University Undergraduate, Stanford University

2017 Kaitlin Boone, and Lillian King-Adas, Santa Clara Undergraduates, Stanford University

2013 Ariadna Ornellas, Summer Equity Research Scholar, OHSU*

2012-2014 Eduardo Rodriguez, Summer Equity Research Scholar and Researcher, OHSU*

2010 Alia Bana, Summer Research Assistant, University of California, Los Angeles

2008-2010 James Reno, Undergraduate Research Assistant, CSUSM

2008-2010 Evelyn Mercado and Oriana Aragon, Research Initiative for Scientific Enhancement (RISE) Scholars, CSU San Marcos*

2007-2010 Cynthia Garcia, and Marianne Klumph, Research Initiative for Scientific Enhancement (RISE) Scholar, CSU San Marcos*

ADVISING

2022-2023 Honors Thesis Project, Mychaela Thomas, University of San Diego

GRANTS & RESEARCH SUPPORT

Current funding

2022-2025 Whitehall Foundation Research Grant (PI: Smith, awarded)

\$285,00 dc, \$15,000 idc

Anterior cingulate mechanisms of socially transferred pain

Completed funding

2022 Enhanced Student-Faculty Interaction Fund (ESFI), University of San Diego (PI: Smith)

\$1,500

Diverse voices in the sciences seminar series

2021-2022 Faculty Research Grant, University of San Diego

\$11,000

Social transfer of pain related depression

2018-2019 Stanford University School of Medicine Deans Fellowship

Social Transfer of pain

2017-2018 T32, Interdisciplinary Training in Pain and Addiction (PI: Sean Mackey, T32DA035165-06), NIMH

Social transfer of alcohol withdrawal-induced pain

2014-2016 F31 NRSA Predoctoral Fellowship, NIAAA (PI: Smith, 1F31AA022824)

Analysis of Edinger Westphal Nucleus Activity Following Alcohol

2013-2014 Neurobiology of Disease Fellowship, Oregon Brain Institute

Analysis of Edinger Westphal Nucleus Activity Following Alcohol

2011-2013 T32, Biological Basis of Alcoholism (PI: Tamara Phillips, T32AA007468), NIAAA

Analysis of Edinger Westphal Nucleus Activity Following Alcohol

PENDING GRANTS

1. NIH Loan repayment program
2. Klingenstein-Simons Neuroscience Research Grant

TEACHING

<i>Forthcoming</i> Spring 2024	Instructor, 1 section, Human Physiology I: BIPN 100. Biological Sciences Division, UCSD
<i>Completed</i> 2022	Instructor, 2 sections, Neuroscience Capstone: NEUR 470, Department of Psychological Sciences, University of San Diego.
2021-2022 2015	Instructor, 4 sections, Biological Psychology: PSY 342, Department of Psychological Sciences, USD Lecturer, Graduate Physiology and Pharmacology of Pain: NEUS 637, Neuroscience Graduate Program, OHSU
2015	Co-Instructor, Diet, Exercise, and the Brain: ED 593, Department of Education Graduate Studies, University of Portland University of Portland, Portland, OR. For graduate Education students.
2014	Lecturer, Advanced Neurophysiological Psychology: PSYCH 410, Department of Psychology, Portland State University
2009	Teaching Assistant, Physiological Psychology: PSYCH 391 Laboratory, Department of Psychology, CSU San Marcos
2009-2010	Co-Instructor, 4 sections, Introduction to Psychology: PSYCH 100, Department of Psychology, CSU San Marcos

DIVERSITY, EQUITY, INCLUSION, AND SCIENTIFIC OUTREACH

2022	Organizer , Power of Diversity in STEM Seminar Series, University of San Diego*
2022-	Programming Committee Member , <i>Leading Edge Fellows Program</i> , HHMI
2022	Contributor , NW Noggin Public Outreach Event, Brain Observatory, San Diego.
2022	Moderator , Leading Edge Neuroscience Fellows Symposium, International.
2022	Panelist , Postdoc to faculty transition, Leading Edge Fellows Program, National.
2022	Guest and Speaker , Public Journal Club for Neurobiology, International.
2022	Guest , Super! Live Stream With Dr. Ben Rein. The Neuroscience of Pain and Empathy.
2019	Contributor and Consultant , The Plenary, a design collective and educational nonprofit*
2017	Director and Workshop organizer , The People's Science, an educational nonprofit.*
2017	Director of Volunteer Management and Events, Founding Member; March for Science (MfS), San Francisco. The inaugural event hosted more than 90,000 people for a rally, march and science fair.
2016	Speaker , Briefing of the United States Congressional Neuroscience caucus on neuroscience outreach and the conveyance of science to the public, Washington DC.*
2016	Speaker , Briefing of the United States Senate Science, Technology, Engineering and Math (STEM) Education and Workforce caucus on neuroscience outreach, Washington DC.*
2016	Writer, Sound producer ; Goggles Optional Podcast, Palo Alto, CA.
2015	Organizer and Presenter , Northwest Noggin Neuroscience Lecture Series, Portland OR.*
2014	Site Director , Noggin Brain Education STEAM series, Franklin High School, Portland, OR.*
2014	Director , Awards and Finances, Graduate Student Organization, OHSU.

**Mentoring or teaching experience that involved working with or in service to underrepresented trainees*

EXTERNAL SERVICE

2022	Member, Planning Committee, Society for Social Neuroscience (S4SN)
2021-22	Member, Equity and Inclusion (DEI) Committee, Department of Psychological Sciences, USD
2021-22	Member, Health Sciences Student Evaluation Committee, College of Arts and Sciences,
2021-22	Member, Goldwater Scholarship nominating committee, College of Arts and Sciences, USD
2021-22	Member, Faculty and student development committee, Psychological Sciences, USD
2015	Student Representative, Behavioral Neuroscience Department Chair search, OHSU
2015	Student Representative, graduate student recruitment committee, Behavioral Neuroscience, OHSU
2014	Panelist, Graduate Student Information Panel, Portland State University
2013	Judge, Research Week competition, OHSU
11-16	Member, Women in Science Organization (WIS), OHSU
2010	Panelist, Graduate Panel, Association of People for Evolutionary Science, CSUSM
2010	Graduate Student Advisor, Student Research Fair, CSUSM
2008	Member, Association of People for Evolutionary Science at CSUSM
2008	Member, Graduate Student Organization at CSUSM
02-06	Member, Psychology Student Organization at CSUSM

SERVICE AT UCSD

School of Medicine
Department of Neurosciences
2023 Member, Neuroscience Graduate Retreat Planning Committee
School of Biological Sciences
Neurobiology Section

PROFESSIONAL MEMBERSHIPS

Current

2018- Society for Social Neuroscience
2017- International Association for the Study of Pain
2013- Society for Neuroscience

Past

2011-2016 Research Society on Alcoholism
2013-2016 American Association for the Advancement of Science (AAAS)
2012-2016 International Society for Biomedical Research on Alcoholism (ISBRA)

EDITORIAL ACTIVITIES

Ad hoc reviewer: Science, Neuron, Social Neuroscience, PNAS, Alcohol and Alcoholism

GRANT REVIEW

2022 Early Career Reviewer (ECR), National Institutes of Health study section, Neurobiology of Pain and Itch (NPI)

OTHER EXPERIENCE AND TRAINING

2023 Scholar, Compass Training and Mentoring Program, Washington University in St. Louis, NIGMS
2021 Study Participant, Exploring white faculty identity and equitable teaching practices. Higher Education Leadership, Monique Appel, USD.
2015 Attendee, CLARITY Technique Training Workshop, Stanford University

PUBLICATIONS

NCBI My Bibliography: https://www.ncbi.nlm.nih.gov/myncbi/12onn2tq_IG5c/bibliography/public/

Google Scholar: <https://scholar.google.com/citations?user=4XZ1MAUAAA&hl=en>

19. Rein, B.* Jones, E.*, Tuy, S., Boustani, C., Johnson, JJ. and **Smith, M.L.** Protocols for the rapid social transfer of pain and analgesia in the mouse. *STAR Protocols*, 3(4): 101756.
18. Zuniga, A., Caruso, M., **Smith, M.L.** and Ryaninin A.E. (2021) Vesicular glutamate transporter 2-containing neurons of the centrally-projecting Edinger-Westphal nucleus regulate alcohol drinking and body temperature. *Neuropharmacology*. 200:108795.
17. **Smith, M.L.**, Asada, N., Malenka, R.C. (2021) Anterior cingulate inputs to nucleus accumbens control the social transfer of pain and analgesia. *Science*, 371(6525) 153-159.
16. Ho, A.L.* , Feng, A.Y.* , Barbosa, D.A.N., Wu, H., **Smith, M.L.**, Malenka, R.C., Tass, P.A., Halpern, C.H. (2021). Accumbens coordinated reset stimulation in mice exhibits ameliorating aftereffects on binge alcohol drinking. *Brain Stimulation*. 14(2) 330-334.
15. Walcott, A.T., **Smith, M.L.**, Loftis, J.M., & Ryabinin, A.E. (2018) Social transfer of alcohol- withdrawal-induced hyperalgesia in female prairie voles. *Social Neuroscience*, 13(6)710-717.
14. **Smith, M.L.**, Walcott, A.T., Heinricher, M.M. & Ryabinin, A.E. (2017) Anterior cingulate cortex contributes to alcohol withdrawal-induced and socially transferred hyperalgesia. *eNeuro*, 0087-17.
13. Giardino, W.J., Rodriguez, E.D., **Smith, M.L.**, Ford, M.M., Mitchell, S.H., Chen, A. Ryabinin, A.E. (2016) Control of chronic excessive alcohol drinking by genetic manipulation of the edinger-westphal nucleus urocortin-1 neuropeptide system. *Translational Psychiatry*, 7(1):e1021.
12. **Smith, M.L.**, Hostetler, C., Heinricher, M.M. & Ryabinin, A.E. (2016) Social transfer of pain in mice. *Science Advances*, 2016;2: e1600855.
11. Pradhan, A.A., Perroy, J., **Smith, M.L.**, Walwyn, W., Bana A., Vincente-Sanchez, A., Kieffer, B.L. & Evans, C.J. (2016) Agonist-specific recruitment of arrestin isoforms differentially modify delta opioid receptor function. *Journal of Neuroscience*, 36(12):3541-51.
10. **Smith, M.L.**, Li, J., Cote, D & Ryabinin, A.E., (2016) Effects of isoflurane and ethanol administration on c-fos immunoreactivity in mice. *Neuroscience*, 1(316):337-43.

9. **Smith, M.L.**, Li, J. & Ryabinin, A.E. (2014) Increased drinking in urocortin 3 knock out mice is unaffected by chronic pain. *Alcohol and Alcoholism*, 50(2):132-9.
8. Anacker, A.M., **Smith, M.L.** & Ryabinin, A.E. (2014) Establishment of stable dominance interactions in prairie vole peers: relationships with alcohol drinking and activation of the paraventricular nucleus of the hypothalamus. *Social Neuroscience*, (25):1-11.
7. Anacker, A.M.J., Ahern, T.H., Hostetter, C.M., Dufour, B.D., **Smith, M.L.**, Cocking, D.L., Li, J., Young, J.L., Loftis, J.M., Ryabinin, A.E. (2014), Drinking alcohol has sex-dependent effects on pair bond formation in prairie voles. *Proceedings of the National Academy of Sciences*, 111(16):6052-7.
6. Pradhan, A.A., **Smith, M.L.**, Zyuzin, J. & Charles, A. (2014) Delta opioid agonists inhibit migraine related hyperalgesia, aversive behavior and cortical spreading depression. *British Journal of Pharmacology*, 171(9):2375-84.
5. Pradhan, A.A., **Smith, M.L.**, McGuire, B., Tarash, I., Evans, C.J., Charles, A. (2013) Characterization of a novel model of chronic migraine. *Pain*. 155(2):269-74.
4. Pradhan, A.A., **Smith, M.L.**, McGuire, B., Evans, C.J., & Walwyn, W. (2013) Chronic Inflammatory injury results in increased coupling of delta opioid receptors to voltage-gated ca²⁺channels. *Molecular Pain*, 9:8.
3. Pradhan, A.A., **Smith M.L.**, Kieffer, B., Evans, C. (2012) Ligand-directed signaling within the opioid receptor family. *British Journal of Pharmacology*, 67(5):960-9.
2. Trujillo, K.A., **Smith, M.L.** & Guaderrama, M.M. (2011) Enhanced behavioral response to methamphetamine and morphine "speedball" in rats. *Pharmacology Biochemistry and Behavior*, 99(3):451-8.
1. Trujillo, K.A., **Smith, M.L.**, Sullivan, B., Heller, C.Y., Garcia, C. and Bates, M. (2011) The neurobehavioral pharmacology of ketamine: implications for drug abuse, addiction and psychiatric disorders. *Institute for Laboratory Animal Research Journal*, 52, 366-378.

INVITED TALKS

Forthcoming

May 2023

Keynote Speaker, Graduate Program Retreat, Medical University of South Carolina

April 2023

National Institute of Drug Abuse, Baltimore, Maryland

Past

2023

Story, Effort, Experiments, Speaker Series. Department of Molecular and Cellular Physiology, Diversity Equity and Inclusion Cabinet, Stanford University,

2022

Early Career Award Talk, Society for Social Neuroscience (S4SN)

2022

Neurobiological Mechanisms Underlying Empathy. Symposium sponsored by the UCSD Sanford Institute for Empathy and Compassion

2022

UCSD Pain and Neuroscience Symposium. UCSD Anesthesiology.

2022

Neuroscience Seminar Series. University of Texas Graduate School of Biomedical Sciences

2021

Neuroscience of Stress and Reward Course Lecture. Stanford University.

2021

World Wide Neuro, NeuRise Neuroscience Seminar Series. International.

2021

Center for Translational Neuroscience Seminar. Emory University.

2021

Neuroscience Seminar Series. California State University, Chico.

2020

Leading Edge Fellows Symposium, National, HHMI.

2018

Office for Training, Research & Education in the Sciences (OTRES) Seminar Series. CSUSM.

2016

Briefing of the United States Congressional Neuroscience caucus on neuroscience outreach and the conveyance of science to the public, Washington DC.*

2016

Briefing of the United States Senate Science, Technology, Engineering and Math (STEM) Education and Workforce caucus on neuroscience outreach, Washington DC.*

2015

Northwest NoggIn Lecture Series: A public lecture on pain and social behavior.